

# IOWA STATE UNIVERSITY

## Digital Repository

---

International Textile and Apparel Association  
(ITAA) Annual Conference Proceedings

2016: Blending Cultures

---

Sep 11th, 12:00 PM

## Synthesis

Elizabeth Davelaar

*University of Delaware*, [davelaar@udel.edu](mailto:davelaar@udel.edu)

Cara Tortorice

*University of Delaware*, [carat@udel.edu](mailto:carat@udel.edu)

Jill Silverman

*University of Delaware*, [jillsilv@udel.edu](mailto:jillsilv@udel.edu)

Anthony DiSanzo

*University of Delaware*, [disanzo@udel.edu](mailto:disanzo@udel.edu)

Megan Blissick

*University of Delaware*, [megbliss@udel.edu](mailto:megbliss@udel.edu)

Follow this and additional works at: [https://lib.dr.iastate.edu/itaa\\_proceedings](https://lib.dr.iastate.edu/itaa_proceedings)



Part of the [Fashion Design Commons](#)

---

Davelaar, Elizabeth; Tortorice, Cara; Silverman, Jill; DiSanzo, Anthony; and Blissick, Megan, "Synthesis" (2016). *International Textile and Apparel Association (ITAA) Annual Conference Proceedings*. 29.

[https://lib.dr.iastate.edu/itaa\\_proceedings/2016/design/29](https://lib.dr.iastate.edu/itaa_proceedings/2016/design/29)

This Event is brought to you for free and open access by the Conferences and Symposia at Iowa State University Digital Repository. It has been accepted for inclusion in International Textile and Apparel Association (ITAA) Annual Conference Proceedings by an authorized administrator of Iowa State University Digital Repository. For more information, please contact [digirep@iastate.edu](mailto:digirep@iastate.edu).

---

## Synthesis

Elizabeth Davelaar, Cara Tortorice, Jillian Silverman, Anthony DiSanzo, & Megan Blissick,  
The University of Delaware, USA.

Keywords: Sustainability, Functional Clothing, Textile Innovation

Dimensions: 35 x 28 x38

The **purpose** of this project was to develop an ethical fashion capsule collection that achieved brand goals as defined by our industry partner, the athletic brand Reebok. The Athleisure market is a \$97 billion market and includes athletic apparel, footwear and accessories (Tabuchi, 2016). Our challenge from Reebok was to develop (from concept through to first sample) a collection of apparel products meshing athletic and fashion, focusing on a MADE IN THE USA concept, considering a lifecycle approach to apparel product development and aligned with Reebok brand DNA. We were to articulate the chosen theme of “be more human” by targeting THE FIT GENERATION, a target market Reebok defines as young people around the globe who are looking at fitness not as an activity but a way of life, eager to pair athletic with sustainable and are willing to pay extra for sustainable offerings. (Reebok, personal communication, February 20, 2016). The semester long challenge focused on Apparel Product Development. Our team simulated a small design company collectively envisioning new models of developing and producing fashion products and generated, from concept to sample stage. The resulting textile and apparel and textile design ensemble combines sustainable, functional and aesthetic attributes.

The complexity surrounding the production of core articles of clothing (legging and tank top) shaped our design story wherein we highlight local talent, regional manufacturing, and environmentally beneficial materials. Examples of these considerations include: A “considered” fashion legging created with Chitosan, a 92% polyester/8% spandex blend with the only antibacterial bio-agent finish certified by the EPA. We collaborated with a local hand-screened textile design studio in an effort to build relationships and feature local talent. Aesthetically, the ensemble offers a subdued edginess that is articulated through soft coloration and mottled texturing in both pant and top, delicate line work on the tank highlight the body, asymmetric pattern placement

---

offers a visual offset, an edge preferred by the Reebok customer. The sports bra was designed manufactured through a local cut and sew facility to highlight “MADE IN THE USA” manufacturing. We include this piece as part of our total ensemble for cohesion and modesty, it should be noted that we did not sew the sports bra.

The tank top features a cotton/hemp knit blend and is dyed with avocado tea created from avocado pits post-mordanted with iron liquor created from rusted nails, vinegar, water and time, forged from a plethora of local Mexican restaurants. Our intention was to create a local natural dye story, working with dyestuff found regionally (not just naturally forged but utilizing the surrounding regional food industry as gathering site). Pattern efficiency is a key aspect of sustainable garment design, we explored marker efficiency in our flat pattern by drafting straps as separate pieces to offset pattern waste.

The Synthesis athleisure ensemble contributes to design scholarship as an example of what is possible in terms of the development of sustainable products. Athletic wear markets communicate technical and sustainability as two unrelated attributes. Our design research was an exercise in how to mesh worlds, through the design process, to create a sustainable and functional ensemble. We view the lifecycle approach to apparel product development as an opportunity share stories inherent in our garments-be it material development, process, or supplier and designer. We feel this is of tremendous value to the brand, to ourselves as product developers and especially to consumers who are seeking out stories that demystify the complexity inherent in the clothing they wear.

#### References:

Tabuchi, H. (2016, March 25). Products and competition stretch market for ‘athleisure’ clothing. *The New York Times*. Retrieved 27 May 2015 from [http://www.nytimes.com/2016/03/26/business/products-and-competition-stretch-market-for-athleisure-clothing.html?\\_r=0](http://www.nytimes.com/2016/03/26/business/products-and-competition-stretch-market-for-athleisure-clothing.html?_r=0)

